

WHAT IS CLAIMED IS:

1. A camera module, comprising:

a lens;

a holder having a lower portion, said holder holding said lens;

5 a circuit board; and

an image sensing and processing unit including an image sensing device and an optional signal processing device stacked on and electrically connected to said image sensing device, said image sensing and processing unit being packaged on one side of said circuit board;

10 wherein said holder is fixed on said circuit board, said image sensing and processing unit inside said lower portion of said holder.

2. The camera module of claim 1, further comprising a glass layer directly covering said image sensing device.

15 3. The camera module of claim 1, wherein said circuit board is a flexible circuit board.

4. The camera module of claim 3, further comprising a hard plate disposed on the other side of said flexible circuit board corresponding to said image sensing and processing unit.

20 5. The camera module of claim 1, wherein said image sensing device is a CMOS image sensing device.

6. The camera module of claim 1, wherein said signal processing device includes a digital signal processing chip.

7. The camera module of claim 1, wherein said signal processing device and said image sensing device are electrically connected together by wire

bonding.

8. A camera module, comprising:

a lens;

a holder having a lower portion and a bottom, said holder holding said

5 lens;

an image sensing and processing unit including an image sensing device and an optional signal processing device stacked on and electrically connected to said image sensing device;

a plate holding said image sensing and processing unit and covering said

10 bottom of said holder, said image sensing and processing unit being inside said lower portion of said holder; and

at least a flexible circuit board electrically connected to said image sensing and processing unit.

9. The camera module of claim 8, further comprising a glass layer

15 directly covering said image sensing device.

10. The camera module of claim 8, wherein said flexible circuit board is electrically connected to said signal processing device.

11. The camera module of claim 8, wherein said flexible circuit board

includes a first flexible circuit board electrically connected to said signal processing

20 device and a second flexible circuit board electrically connected to said image sensing device.

12. The camera module of claim 11, wherein a viscous layer is between said first flexible circuit board and said second flexible circuit board

13. The camera module of claim 8, wherein said plate includes a plastic

plate.

14. The camera module of claim 8, wherein said image sensing device is a CMOS image sensing device.

15. The camera module of claim 8, wherein said signal processing 5 device includes a digital signal processing chip.

16. The camera module of claim 8, wherein said signal processing device and said image sensing device are electrically connected together by wire bonding.

17. A image sensing and processing unit, comprising:  
10 a signal processing device;  
an image sensing device stacked on and electrically connected to signal processing device; and  
a circuit board electrically connected to at least one of said signal processing device and image sensing device.

15 18. The unit of claim 17, wherein said circuit board includes a flexible circuit board, and said image sensing device is disposed on said flexible circuit board.

19. The unit of claim 17, wherein said circuit board includes a flexible circuit board.

20. The unit of claim 17, wherein said circuit board includes one or 20 two flexible circuit boards.